

WHAT IS CLAIMED AS NEW AND DESIRED TO BE SECURED BY LETTERS
PATENT OF THE UNITED STATES IS:

1. A packaging and dispensing device for a product, including:
a hollow base having a cylindrical inner wall,
a cup which accommodates the product,
a sleeve which is positioned at least partially above the base, wherein the sleeve is rotatable relative to the base, wherein the cup moves axially inside the sleeve in response to rotation of the sleeve relative to the base, and further wherein the cup is rotatably coupled to the sleeve, such that the cup rotates when the sleeve rotates,
wherein the cup is formed at the end of a stem, and wherein the stem has at least one lug in proximity to a free end of said stem, and wherein said at least one lug engages with a helical groove in the cylindrical inner wall of the base, and further wherein said lug is resiliently supported by the stem so as to be capable of disengaging from the groove at least at one end of the groove, and wherein the sleeve comprises means to limit the travel of the cup.
2. A device according to claim 1, wherein the stem is oriented perpendicularly to a bottom of a well formed by the cup, and the stem is positioned at a center of said bottom.
3. A device according to claim 1, wherein the means to limit the travel of the cup closes off the sleeve transversely while leaving sufficient space for an aperture, and wherein the stem slides through said aperture.
4. A device according to claim 3, wherein the stem comprises a transverse cross-section complementary with an inner periphery of said aperture such that said stem is integral in rotation with the sleeve.
5. A device according to claim 4, wherein a transverse cross-section at a level of the lug is larger than the inner periphery of the aperture.
6. A device according to claim 3, wherein a transverse cross-section at a level of the lug is larger than the inner periphery of the aperture.
7. A device according to claim 1, wherein a length of said stem defined between the lug and the bottom of the cup is substantially equal to a height of the sleeve, on the axis of the helical groove, between the means to limit travel and a dispensing aperture in the sleeve.
8. A device according to claim 7, wherein the means to limit travel bears on an edge surface of the base delineating an access to the cylindrical inner wall.

9. A device according to claim 8, wherein a length of said stem defined between the lug and a bottom of the cup is substantially equal to a height of the cylindrical inner wall having the helical groove on the axis of the helical groove.

10. A device according to claim 1, wherein the means to limit travel bears on an edge surface of the base delineating an access to the cylindrical inner wall.

11. A device according to claim 1, wherein a length of said stem defined between the lug and a bottom of the cup is substantially equal to a height of the cylindrical inner wall having the helical groove on the axis of the helical groove.

12. A device according to claim 1, wherein the sleeve includes a flange on an inner wall to engage with a groove provided on an outer circumference of the base.

13. A device according to claim 12, wherein said flange has a semi-cylindrical cross-section.

14. A device according to claim 12, wherein the lug is disposed on a tab that is flexible relative to the stem, and wherein the tab is positioned in proximity to the free end of the stem.

15. A device according to claim 1, wherein the lug is disposed on a tab that is flexible relative to the stem, and wherein the tab is positioned in proximity to the free end of the stem.

16. A device according to claim 15, wherein the stem includes four lugs evenly distributed about a periphery of the stem, and wherein each lug forms a protuberance.

17. A device according to claim 1, wherein the stem includes four lugs evenly distributed about a periphery of the stem, and wherein each lug forms a protuberance.

18. A device according to claim 1, wherein the at least one lug has a variable thickness in a longitudinal cross-section along an axis of the stem, wherein the thickness diminishes in proximity to a terminal extremity of the lug toward the free end of the stem.

19. A device according to claim 1, wherein the helical groove includes a bottom framed by first and second rims to accommodate the lug, and wherein a first angle formed between the first rim and the bottom is different from a second angle formed between the second rim and said bottom, and further wherein this arrangement of the rims causes the lug to re-engage in the helical groove if it is caused to rotate against the second rim.

20. A device according to claim 1, further including a cap capable of being retained on the base.

21. A device according to claim 1, wherein the base is a tube open at both ends and fitted with a bottom cap.

22. A device according to claim 1, wherein said product is a lipstick product.

23. A device according to claim 1, wherein said product is a cosmetic product.

24. A device according to claim 1, wherein said cap is movable between a lowermost position and an uppermost position, and wherein in said uppermost position engagement between said at least one lug and said means to limit travel prevents further upward movement of said cup, and wherein in said lowermost position said means to limit travel is sandwiched between a bottom of said cup and a top of said base.

25. A device according to claim 1, wherein said stem rotatably couples said sleeve to said cup.

26. A packaging and dispensing device for a product comprising:
a base having at least one helical groove associated therewith;
a cup within which the product is disposed;
a sleeve which is at least partially disposed above the base, and wherein said sleeve is rotatable relative to said base, said sleeve including a portion having a first cross-section;
a stem extending from said cup, said stem having a first end coupled to said cup and a second end, and wherein at least one lug is disposed on said stem proximate said second end;
wherein said stem extends through said portion of said base and said stem is movable axially through said portion, and further wherein said first cross-section is arranged with respect to a cross-section of said stem at a location between said at least one lug and said first end of said stem such that said portion of said sleeve is coupled to said stem whereby upon rotation of said sleeve said stem rotates to thereby rotate said cup, and further wherein said at least one lug does not pass through said portion of said sleeve thereby limiting axial movement of said stem and said cup; and

wherein said at least one lug engages with said helical groove such that as the sleeve is rotated relative to said base, said at least one lug moves along said helical groove to cause axial movement of said stem and said cup with respect to said sleeve.

27. A packaging and dispensing device according to claim 26, wherein said stem has a plurality of lugs associated therewith.

28. A packaging and dispensing device according to claim 27, wherein said base has a plurality of helical grooves associated therewith.

29. A packaging and dispensing device according to claim 28, wherein said portion of said sleeve includes at least one protrusion.

30. A packaging and dispensing device according to claim 29, wherein said portion of said sleeve defines a non-circular aperture and said stem has a non-circular cross-section.

31. A packaging and dispensing device according to claim 29, wherein said at least one protrusion at least partially defines an aperture delimiting said first cross-section, and wherein said stem extends through said aperture.

32. A packaging and dispensing device according to claim 31, wherein said aperture defines at least a portion of a polygonal shape.

33. A packaging and dispensing device according to claim 26, wherein said portion of said sleeve includes at least one protrusion.

34. A packaging and dispensing device according to claim 33, wherein said at least one protrusion at least partially defines an aperture delimiting said first cross-section and through which said stem extends.

35. A packaging and dispensing device according to claim 34, wherein said aperture defines at least a portion of a polygonal shape.

36. A packaging and dispensing device according to claim 26, wherein said at least one lug includes a first tapered portion disposed between said lug and said second end of said stem.

37. A packaging and dispensing device according to claim 36, wherein said at least one lug is disposed on a flexible portion of said stem.

38. A packaging and dispensing device according to claim 26, wherein said cup is movable between a lowermost position and an uppermost position, and wherein in said lowermost position said portion of said sleeve is sandwiched between a bottom of said cup and a top of said base.

39. A packaging and dispensing device according to claim 38, wherein said portion of said sleeve prevents said at least one lug from moving higher when said cup is in said uppermost position.

40. A packaging and dispensing device according to claim 39, wherein the helical groove includes a bottom framed by first and second rims to accommodate the at least one lug, and wherein a first angle formed between the first rim and said base is different than a second angle formed between said second rim and said base.

41. A packaging and dispensing device according to claim 40, wherein said second angle is larger than said first angle.

42. A packaging and dispensing device according to claim 40, wherein said at least one lug disengages from said helical groove when said cup is in the uppermost position and relative rotation between said sleeve and said base causes said at least one lug to re-engage with said helical groove.

43. A packaging and dispensing device according to claim 26, wherein the helical groove includes a bottom framed by first and second rims to accommodate the at least one lug, and wherein a first angle formed between the first rim and said base is different than a second angle formed between said second rim and said base.

44. A packaging and dispensing device according to claim 43, wherein said second angle is larger than said first angle.

45. A packaging and dispensing device according to claim 43, wherein said at least one lug disengages from said helical groove when said cup is in an uppermost position and relative rotation between said sleeve and said base causes said at least one lug to re-engage with said helical groove to move said cup downwardly.

46. A packaging and dispensing device according to claim 26, wherein said product is a cosmetic product.

47. A packaging and dispensing device according to claim 26, wherein said product is a lipstick.

48. A packaging and dispensing device comprising:
a base having at least one helical groove associated therewith;
a sleeve coupled to said base such that said sleeve is rotatable relative to said base, said sleeve including a portion at least partially defining an aperture;
a cup rotatably coupled to said sleeve such that when said sleeve is rotated relative to said base said cup is rotated relative to said base, and wherein said cup is slidable relative to said sleeve to move said cup between a lowermost position and an uppermost position;
a stem extending from a bottom of said cup, said stem including a first end connected to said cup and a second end, and wherein at least one lug is disposed proximate to said second end, and wherein said stem extends through said aperture of said portion of said sleeve and said stem moves through said aperture as said cup is moved between said lowermost position and said uppermost position; and
wherein said at least one lug does not pass through said aperture to thereby prevent said cup from moving beyond said uppermost position.

49. A packaging and dispensing device according to claim 48, wherein when said cup is in said lowermost position said portion of said sleeve is sandwiched between the bottom of said cup and a top of said base.

50. A packaging and dispensing device according to claim 49, wherein said aperture is rotatably coupled to said stem to thereby rotatably couple said cup to said sleeve.

51. A packaging and dispensing device according to claim 48, wherein said aperture is rotatably coupled to said stem to thereby rotatably couple said cup to said sleeve.

52. A packaging and dispensing device according to claim 48, wherein said stem includes a plurality of lugs associated therewith.

53. A packaging and dispensing device according to claim 52, wherein said base includes a plurality of helical grooves.

54. A packaging and dispensing device according to claim 48, wherein said aperture is a polygonal aperture.

55. A packaging and dispensing device according to claim 48, wherein said helical groove includes a bottom formed by first and second rims to accommodate said at least one lug, and wherein a first angle formed between said first rim and said bottom is different from a second angle formed between said second rim and said bottom, and wherein said second angle is larger than said first angle.

56. A packaging and dispensing device according to claim 48, wherein said at least one lug is disengaged from said helical groove when said cup is in said uppermost position.

57. A packaging and dispensing device according to claim 48, wherein said product is a cosmetic product.

58. A packaging and dispensing device according to claim 48, wherein said product is a lipstick.